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Friday, May 31, 2002

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Tower of power for Site 300

By Don Johnston

NEWSLINE STAFF WRITER

A 300-foot tower has been erected at Site 300 to improve radio coverage at the experimental test site and upgrade communications links with the Laboratory.

The new structure replaces the nearby 100-foot tower at Bldg. 849 on the 1,400-foot promontory overlooking the test site and the Central Valley. A modular 14-by-24-foot communications facility has also been built to house microwave and radio transmitters and receivers.

"Communications have become very sophisticated and we've needed to upgrade systems at Site 300," said Pete Davis, project engineer. "The taller tower will improve radio coverage of the test site and provide a good stable structure for microwave links."

The tower is integral to all wireless communications at Site 300 and with the main Livermore campus — security communications, fire dispatch, telephone and the

See TOWER, page 8



The new radio tower, standing 300 feet high, will improve radio coverage and upgrade links between Site 300 and the Laboratory. The tower is integral to wireless communications.

Combating bioterrorism calls for a comprehensive biological security approach

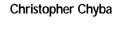
By Don Johnston

NEWSLINE STAFF WRITER

The anthrax attacks last fall make it clear that the United States needs "a comprehensive approach" to biological security, said Christopher Chyba, co-director of Stanford University's Center for International Security and Cooperation, in a Director's Distinguished Lecturer Series presentation.

Chyba said the attacks in Tokyo by the Aum Shinrikyo cult were earlier evidence that "attempted mass biological attacks are within the realm of possibility."

Prior to the more highly publicized sarin gas attack in the Tokyo subway, the cult had attempted to spread anthrax in the city but used the wrong strain. "I don't know if we should take



comfort in that," he said, noting the perpetrators were sophisticated "but failed technically."

Chyba warned that because of the special challenges biological weapons pose, a different strategy is needed from that used to combat the threat of nuclear or chemical weapons. "Our minds are too easily captured by misplaced analogies to nuclear weapons," he said. "We tend to group the nuclear, biological and chemical."

The biological threat is, in one sense, more analogous to cyberterrorism because it is more diffuse.

"There are over 100 million computers in the world with access to the Internet and the number is growing daily," Chyba said. Likewise "biological weapons materials are present in many facilities

See CHYBA, page 5

Evolving trends in software, and intellectual property subject of IPAC workshop

A software workshop sponsored by the Laboratory's Industrial Partnerships and Commercialization (IPAC) Office drew nearly 100 attendees last week.

Participants in the event, held on on May 22 and 23, included software developers, their managers, procurement officers, attorneys, DOE/NNSA representatives and technology transfer professionals who came to hear about rapidly evolving trends in intellectual property and business models for software.

See WORKSHOP, page 8

More companies join Lab technology center

By Anne M. Stark

NEWSLINE STAFF WRITER

Three additional companies, for a total of six, have moved into the Tri-Valley Technology Enterprise Center at the Laboratory.

As of earlier this month, Reactive NanoTechnologies (RNT), WaferFlow and DIODETEC Inc. opened offices at TTEC's facility, near the Lab pool.

RNT, headquartered in Baltimore, recently licensed technology from the Lab. Company CEO, Timothy Weihs — a former LLNL scientist — said his company will be working with LLNL for quite a while.

The Baltimore company has developed a

new method of joining materials that it claims will revolutionize the current processes of soldering and brazing as well as open up new applications in the areas of metal-to-ceramic joining and the fabrication of laminated magnetic materials.

Weihs said its reactive foil joining methods can help manufacturers overcome current technical hurdles such as thermal mismatch in metal-to-ceramic joints; thermal damage to microelectronics; long cycle times in furnaces; and poor electrical conduction across joints.

DIODETEC is a manufacturer of solid state diode arrays used to power advanced laser systems. The company recently licensed

See TTEC, page 8



Remembering Gary Higgins

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1973: Industrial uses for AVLIS

— Page 3



Ensuring science contributions

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Lab community news

Weekly Calendar

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The next session of the **Benefits Office's brownbag series** on how to enhance your financial security by participating in

the Tax-Deferred 403(b), is today from 12:15-1:15 p.m. in Bldg. 571, conference room 2301. Additional sessions will be held on the last Friday of each month through October. Attendance is open and no pre-registration is required. Bring your lunch and your questions.



There is a **scheduled power outage** from 7 a.m. Saturday to 3 p.m. Sunday in the following locations: Bldgs. 211, 214, 216, 217,

218, 311, 313, 314, 315, 316, 321 and 329; and Trailers 2127, 2180 and 3180. Contact: Mark Cardoza, 3-0490.

Monday 3

The American Indian Activity Group is hosting award winning **storyteller Dovie Thomason-Sickles**, who will speak from

noon-1 p.m. in the Bldg. 543 auditorium. Thomason-Sickles, who is also a recording artist and author, uses the oral tradition of Native Americans and transforms it for today's world. Employees are encouraged to attend this presentation. Contact: Darlene Yazzie, 37846.



Connie Allen, a professor of Counterintelligence Centre (CI) in Washington, D.C., will present "Vulnerabilities

of the Foreign Traveler," at 1:30 p.m. in the Bldg. 543 auditorium. This talk is presented by the Security Awareness for Employees Program (SAFE). All Lab employees are invited to attend, although this abbreviated seminar was prepared specifically for travelers to foreign countries, especially nations on the DOE list of sensitive countries. See http://www-r.llnl.gov/safe/ list.html



Plant Engineering's annual **Chili Cookoff** is from 11:30 a.m. to 1 p.m. in the Bldg. 551E lake area. Cost of the lunch is \$5 and

includes your choice of mild linguica or barbecued chicken, potato salad, chips, salsa, a drink, and of course, chili. To enter your chili in the contest or purchase tickets, call Amelia Regacho, 3-2807.



The Friends of the Livermore Public Library have invited Jim Bamford, visiting professor at UC Berkeley's Goldman School

of Public Policy, to discuss his book, "Body of Secrets: Anatomy of the Ultrasecret NSA, From the Cold War to the Dawn of a New Century," at 7:30 p.m. at the Civic Center Library, 1000 S. Livermore Ave. This book is a sequel to "The Puzzle Palace: A Report on NSA, Americas' Most Secret Intelligence Agency."

Plowshare leader Higgins dies at 75

A memorial gathering for Lab retiree Gary H. Higgins will be held Saturday, 11 a.m. to 3 p.m., at the Crow Canyon Country Club in Danville, 711 Silver Lake Drive. Higgins, a longtime Lab manager and scientist, died Friday following a heart attack. He was 75.

Higgins was born in Minnesota and earned his undergraduate degree at Macalester College in Minnesota. He earned his Ph.D. in transuranium element radiochemistry at UC Berkeley.

Higgins, who retired in 1983, started at the Lab in 1952 in the Chemistry Department. During his career, he also worked in Radiochemistry, served as head of

K Division, was technical adviser to the Energy and Resource Program AD for more than 10 years and project leader for the Uranium Resource Evaluation Program.

As K Division leader, he planned, coordinated and evaluated Plowshare nuclear explosives programs, which focused on research into the peaceful applications of nuclear explosions.

"He had a lot of original ideas on Plowshare," recalled John Rambo, who worked for Higgins in the early '70s. "He was not only a good scientist, but he was also a great idea man."

Higgins' research interests included the effects of explosions on earth and rock materials, geochemistry of earth mantle and crust, coal gasification and in situ fuel and mineral processes.

In addition to his early work in radiochemistry and nuclear properties of Americium and Curium isotopes, Higgins worked on the development of

IN MEMORIAM



Gary Higgins

rapid ion-exchange separations, which have been used in identification of new transuranium elements. He co-discovered elements 99 and 100, Einsteinium and Fermium.

He co-authored a book in 1968 with Director Emeritus Edward Teller and Wilson Talley, entitled, "Constructive Uses of Nuclear Explosives."

Higgins received the Engineering "Man of the Year" Award in 1964 from the Engineering News Record and was awarded an honorary doctorate at his alma mater, Macalester College in 1968. In 1970, he was awarded a Guggenheim Fellowship for studies on the evolution of

the Earth's crust.

He was a long-time member of the Containment Evaluation Panel, which was convened at the Nevada Test Site before every test. The panel evaluated all aspects of the test before it could take place.

"He was instrumental in understanding cavities from nuclear events," Rambo recalled. "His division developed software for shockwave analysis from a nuclear event and did some of the early work on atmospheric release analysis."

Higgins is survived by his wife, Joan of Walnut Creek; daughter Leslie of Ithaca, NY; sons Timothy of Topaz, Nev.; Daniel of Brentwood; David of Danville; Andrew of Encinitas; eight grandchildren and two great-grandchildren.

Cards may be sent to Joan Higgins at 1908-C Tice Valley Road, #408, Walnut Creek, 94595. Memorial contributions may be made in his name to the American Heart Association.

Walkers needed for diabetes fund-raiser

Volunteers are needed to participate in the Juvenile Diabetes Research Foundation's Walk to Cure Diabetes scheduled for Sunday, Oct. 6, at Heather Farms Park in Walnut Creek.

Walkers raise money for diabetes research by asking friends and relatives to sponsor them for participating in the walk-a-thon. Last year, the Greater Bay Area walk raised \$2 million for the research foundation, whose mission is to find a

cure for diabetes and its complications through the support of research.

According to the Juvenile Diabetes Research Foundation, approximately 30,000 Americans are diagnosed with Type 1 diabetes each year, more than 13,000 of whom are children.

For more information or to volunteer, contact the foundation at 1-888-533-WALK or www.jdrf.org.

24-hour relay to raise money, awareness for cancer

Livermore Relay for Life, a 24-hour relay to raise money for the American Cancer Society as well as increase cancer awareness, is scheduled for June 22 at the Livermore High School track.

The event begins at 10 a.m. and continues until 10 a.m. June 23.

Cancer survivors are encouraged to take the first lap around the track. At the relay, team members take turns walking or running around a track,

relay-style and enjoy fun activities and entertainment off the track.

To join a team, start a team, or attend with a survivor, call Robyn Tirnetta, 3-4123, Maddie White at 292-9183 for more information.

Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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It is illegal to operate a cellular phone in Q-cleared areas.

Friday, May 31, 2002

1952 – 2002 Making History, Making a Difference



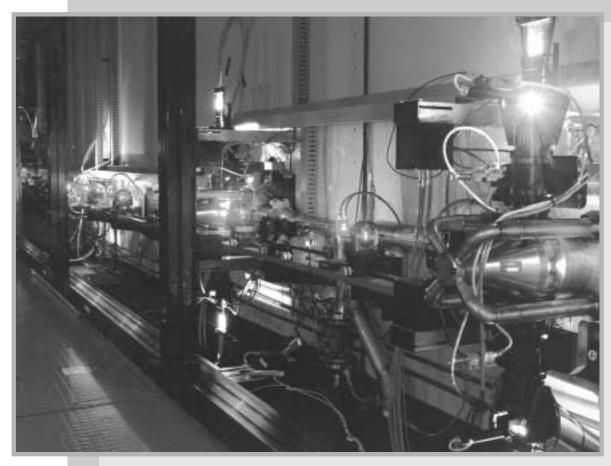
U-AVLIS: Industrial-scale applications for lasers

This is an ongoing feature highlighting the Lab's 50-year history. This week we take a look at the year 1973.

Laser Isotope Separation (U-AVLIS) Program began to help maintain the U.S. market share of the world's enriched uranium fuel for fission energy reactors. The U-AVLIS process for separating isotopes of uranium is more efficient, requiring 1/20th the electrical power required by other methods, and uses less hazardous materials.

Steady progress was made from the Morehouse experiment in 1974 through the REGULIS separator in 1980 and the MARS Facility in 1984. Technologies for tunable and solid-state lasers advanced dramatically, and significant progress was made in the physics of laser-atomic interactions. In addition, the Laboratory staff gained valuable experience in laser-based industrial production, which has benefited many other projects.

In the early 1990s, the Uranium Demonstration System and the Laser Demonstration Facility were constructed at Livermore to test the U-AVLIS process at plant scale. Congress created the United States Enrichment Corporation (USEC) to move AVLIS into the private sector. However, in June 1999, in light of the world's changed energy situation, USEC suspended funding of the AVLIS Project, retaining rights to AVLIS technology for commercial applications.



A clean, efficient process for producing the fuel for nuclear power plants was the goal of the Laboratory's precisely tuned, high-power AVLIS laser.

1973 separation ISOTOPE

Around the Lab



Dixy Lee Ray visits the Lab

Dr. Ray was the first woman chairperson of the Atomic Energy Commission (AEC). During her 1973 visit to the Lab, she met with her former student, Lab biologist Florence Harrison. Dr.

Harrison was a role model for numerous women scientists

Around the nation

- Roe v. Wade
- First U.S. space station, Skylab, launched
- Dixy Lee Ray becomes first woman chairperson of Atomic Energy Commission

Around the world

- French nuclear tests in the Pacific
- Yom Kippur war

in other NEWS

Other news around the Lab, the nation

and the world.

For more of the Lab's rich history, check out the Timeline, located at: http://www.llnl.gov/timeline/

Save these dates!

AUG. 1ST, 2ND

SCIENCE DAYS

Join Lab employees as they discuss the Lab's history and present the status of programs in the areas of bio defense, climate modeling, lasers and energy, astrophysics and more.

4 Newsline Friday, May 31, 2002



News you can use



BRIEFLY

Last day to submit comments for proposed work schedule options

Today is the last day to submit comments on the Lab's new proposed work schedule options, which includes a 9/80 workweek. Employees may view redline/strikeout and text only versions of the proposals as well as an information packet (click on "Q&A") summarizing the proposals and providing answers to frequently asked questions at http://www-hr.llnl.gov/PDF/hr_admin/proposed_policy/policyhome.html

Comments on the proposals are due to Virginia George at L-708 or george13@llnl.gov by close of business today.

New Web-based postdoc bulletin board now available

At a recent luncheon for all LLNL post-docs, it was decided to create a Web-based bulletin board that would allow LLNL post-docs to network with each other. The Postdoc Bulletin Board (http://step.llnl.gov/postdoc/) is now operational with a link to scheduled events and other links containing information of special interest.

All postdocs are encouraged to add their email addresses to the mailing list and any other additional information for networking to the postdoc directory. Comments and questions may be sent to Don Correll (2-6784 or correll1@llnl.gov).

Panel discussion looks at history, successes of Energy programs

The Energy and Environment Directorate will hold a panel discussion on Thursday, June 27, at 1:30 p.m. in Bldg. 543 auditorium with three former Energy Program leaders about the early stages in the development of the Energy programs during the Nixon-Carter era. The panel discussion is part of the Laboratory's 50th anniversary celebration's "Then and Now Week."

President Nixon started Project Independence (to obtain independence from imported oil) to address the energy crisis, and President Carter subsequently declared the energy crisis as the "moral equivalent to war." The initial topics to be discussed will include an overview of the energy programs at the Lab, the major issues and successes. A question and answer session will follow.

A poster session of recent E&E energy research and refreshments will follow the discussion. For more information, call Camille Vandermeer, 3-2672.

Rewarding efforts



Barry Schrader, manager of community relations at the Lab, recently received one of the annual awards for outstanding efforts at historic preservation from the Livermore Heritage Guild at a Livermore City Council meeting. Presenting the award was Guild president Tim Sage, at left. The award commended Schrader for his efforts at preserving local landmarks and vineyards as well as promoting the heritage of the community with a Historymobile project.

Technical Meeting Calendar

Friday 31

INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Superbursts: A New Regime of Nuclear Burning on Accreting Neutron Stars," by

Andrew Cumming, UC Santa Cruz. Noon, Bldg. 319, room 205 (badge required). Contact: Chris Mauche, 2-7017.

ELECTRONICS ENGINEERING

"A Process Perspective on Microtechnology Systems," by Duyen T. Nguyen, interview candidate. 9:30 a.m., Bldg. 141, room 1104 (uncleared area). Contact: Steve Azevedo, 2-8538.



UC DAVIS, DEPARTMENT OF APPLIED SCIENCE

"Probing the Properties of Cells and Cell Surfaces with the Atomic Force Microscope," by

Mike McElfresh, LLNL. 4 p.m., Bldg. 661 (Hertz Hall), room 7 (open area). Refreshments served 15 minutes before seminar for a "meet the speaker" session. Contact: Estelle Miller, 2-9787.

CENTER FOR GLOBAL SECURITY RESEARCH

"Prospects for New US-Russian Strategic Framework," by Alexander A. Pikayev, Carnegie Moscow Center and Duma Defense Committee. 10 a.m., Bldg. 132 South, CGSR conference room 1781 (uncleared area). Contact: Tami Alberto, 2-5969.

ADVANCED DETECTOR GROUP

"Advanced Detectors for Astro-Particle Physics and Industry", by Josef Jochum. 11 a.m., Bldg. 132S, Room 1784 "Summit Room" (badge required). Contact: Simon Labov, 3-3818.



GEOSCIENCES & ENVIRONMENTAL TECHNOLOGIES

"Streamline-Based Simulation of Virus Transport Resulting from Long Term Artificial Recharge in a

Heterogeneous Aquifer," by Reed Maxwell. 11 a.m., Bldg. 151, Stevenson Room. Contact: Margaret Fleming, 3-2970



MATERIALS RESEARCH INSTITUTE

"Local Structure in Liquids and Glasses," by Alexander Patashinski, Northwestern University. 3:30

p.m., Bldg. 219, room 163 (badge required). Contact: Joanna Allen, 2-0620.



ELECTRONICS ENGINEERING

"The Impact of Adoption Subsidies on R&D Incentives," by Leon E. Clarke, LLNL. 9:30 a.m., Bldg.131, room 1645 (cleared area). Contact:

Steve Azevedo, 2-8538.



PHYSICS & ADVANCED TECHNOLOGIES

"Recent Neutron-Induced Gamma-Ray Cross-Section Measurements With GEANIE," by Nikolaos

Fotiadis, LANL. 1:30 p.m., Bldg. 211, room 227

(badge required). Contacts: John Becker, 2-9676, or Pat Smith, 2-0920.

ELECTRONICS ENGINEERING

From "C" to Circuits in One Day: FPGA Design and Rapid Prototyping," by Virgil N. Kohlhepp III, LLNL. 10:30 a.m., Bldg. 141, room 1104, Bay 1 conference room (uncleared area). Contact: Steve Azevedo, 2-8538.

ENVIRONMENTAL RESTORATION

"Rapid Microbial Sensing for Environmental Health Applications Using Flow Cytometry" by Peter Adriaens, University of Michigan. 3 p.m, Bldg. 543 auditorium (uncleared area). Contacts: Staci Kane, 2-7897, or Cheryl Kuks, 2-1243.



INSTITUTE FOR GEOPHYSICS & PLANETARY PHYSICS

"Photoevaporated Gas Flows in Astronomical Nebulae," by Robin Williams, Cardiff

University. Noon, Bldg. 319, room 205 (badge required). Contacts: Adam Stanford, 3-6013, Rosemarie Cortez-Kudo, 3-0621.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

Friday, May 31, 2002 Newsline 5

News of note



Ensuring continued contributions to American science

By Ali Carrigan

NEWSLINE STAFF WRITER

The Asian-American community has contributed greatly to American science and culture in the past, and Nelson Dong wants to ensure that the contributions continue.

Dong addressed Lab employees Wednesday as part of Asian Pacific American Heritage Month and discussed "American Demographics and History: Lessons Learned for the National Laboratories."

Dong is a partner at the Seattle-based law firm Dorsey & Whitney LLP, and served on the President's Export Committee Subcommittee on Export Administration. In addition, he is a member of the Committee of 100 — an organization founded by noted Chinese Americans like Yo-Yo Ma and I.M. Pei that hopes to increase the involvement of all Chinese Americans in American society. The committee also hopes to continually improve relations between the Chinese and American governments and people.

"We're aware that a lot of U.S. citizens were born and raised in China," Dong said, "and we know that they still have friends and family there, and they still visit and teach in China. We want to make that interaction fuller."

Dong's talk focused on lessons that national laboratories like Los Alamos, Sandia and Livermore can learn from American demographics and history.

"In the wake of the Wen Ho Lee case at Los Alamos, the Committee of 100 wanted to add to the dialogue in a positive manner. We didn't want to simply add fuel to the fire," Dong said. "But we were, and still are, very concerned about the recruitment and retention of Asian Pacific Islanders (APIs) at the national labs."

In the 2000 census, APIs accounted for 3.7 percent of the U.S. population, and 25 percent of the API population was Chinese or of Chinese descent. But according to a 1995 study, scientists and engineers of Asian descent made up 10 percent of the scientific



Nelson Dong

workforce in the United States.

"The large increase in Chinese scientists in the United States that you see in the 1990s is mainly due to the incidents in Tiananmen Square (in 1989) and the resulting Chinese Student Protection Act passed by Congress in 1992," Dong explained. Dong also cited a National Science Board report that found that foreign students filled about 50 percent of all scientific post-doctoral jobs, and that by 1997, 97 percent of engineers from China who earned doctorates in the United States were still employed in the country.

"What we're seeing is the pipeline to the national labs is filled more and more by foreign students," Dong said. "And so the labs need to look at ways to attract and keep those people, and it's getting harder to do for a number of reasons."

One of the main reasons for difficulty in attracting foreign-born Asian students is the increased concern around security measures

"Are security measures necessary? Yes. But in the wake of the Wen Ho Lee case, a lot of Asians feel that they are unfairly applied," Dong said. "There is a feeling that racial profiling goes on, and that needs to be put to rest if the government wants to keep its best scientists."

He emphasized the need to apply security measures to all employees, regardless of race or national origin. Dong also called for the same security and debriefing measures for Lab employees traveling abroad, regardless of the nation to which they were traveling.

The impact of Silicon Valley and similar opportunities in the private sector were also discussed, as well as foreign countries trying to recruit some of their own citizens back

"China suffered tremendously in the 1980s and '90s, as they saw most of their best scientists leave the country," Dong said. "Now, they're targeting recruitment at the people who might leave to keep them in the country. That takes them away from U.S. employment"

In summing up his "lessons," Dong commented on several things that the Lab has control over and can change to help recruit and retain Asian Americans.

"We need to make sure that there are reasonable, non-discriminatory security measures for all personnel, so Asians don't feel singled out," Dong said. "Releasing the full report on the Wen Ho Lee case would help eliminate some of the mystery swirling around that situation."

He also mentioned elimination of the perceived "glass ceilings" in the workplace, and placing qualified minorities in mid- and high-level management positions.

"We want to help all minorities achieve their best," Dong said. "These are just a few of the ways that the national labs can aid that process."

СНҮВА

Continued from page 1

around the world. As biotechnology spreads around the world, the ability to do nefarious things will become more common. The biotechnology revolution is rolling around the world and there's nothing that can stop that."

In contrast, nuclear weapons production requires large, complex facilities. "There are impressive bottlenecks a program has to go through to make nuclear weapons," Chyba said, adding that the Vienna-based Atomic Energy Commission monitors more than 1,000 nuclear facilities around the world.

The result is a comparatively "robust" nuclear nonproliferation regime, he said.

The nonproliferation and deterrence strategies used for nuclear weapons are less applicable to the biological threat. "Biological weapons pose other challenges," Chyba said. "One of the challenges is recognizing an attack as an attack and not a disease outbreak."

When followers of Baghwan Shree Rajneesh spread salmonella bacteria in Oregon salad bars in

1984, "it was a year before the attack was recognized as intentional," he said. "In some cases biological attacks may not be recognized. Another challenge is how do you attribute attack."

The main defense against biological attack is a public health system equipped to detect and respond to disease outbreaks not just in the United States but around the world, according to Chyba. "Because of incubation periods associated with biological agents, the first responders are going to be doctors and health care providers, not police and fire."

Noting recent public discussion about U.S. preparedness for a smallpox outbreak, Chyba said, "we need to supplement our smallpox vaccine supply. It is in our interest to respond to smallpox outbreaks overseas.

"We need to work toward real-time surveillance of disease," he said. "There is not a robust world surveillance system."

Biological security will require an international effort in "prevention, protection and response," Chyba said, adding that a political challenge is getting nations to agree to surveillance protocols.

Other measures that should be taken include cata-

loging and ensuring the security of existing stocks of biological agents, creating libraries of relevant strains and acquiring strains or gene sequences from former Soviet republics as part of a larger cooperative threat reduction effort.

Chyba said there's a new biosecurity bill pending in Congress that would provide \$150 million for improving disease surveillance and response internationally.

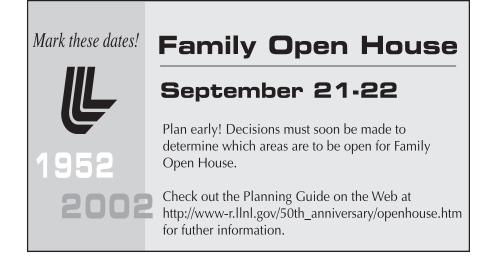
"There's a skeleton of a surveillance system in place, but it needs to be strengthened," he said.

Science and technology play a big part in biological security and Chyba said scientists need to work closely with policymakers on technical issues.

"The U.S. government is not well positioned for science advising," said Chyba, a former White House Fellow. "The challenges we face will increasingly have a technical component. Too often policymakers don't understand the importance of technical advice.

"The scientific community needs to get smarter about working with policymakers. The scientific community too often punishes scientists interested in policy. We need to revivify science advising in Washington."







CLASSIFIED ADS

See complete classified ad listings at https://www-ais.llnl.gov/newsline/ads/

AUTOMOBILES

1993 - Geo Metro, 5-speed, 2-door, hatchback, 84k miles, red, runs well. \$1400. 925-373-1210

1994 - Plymouth Grand Voyager minivan. white, 128000 Mi \$4000 925-820-5807

2000 - Honda Civic Ex, 2 dr, Auto, sunroof, CD stereo, power doors, windows, tinted windows, custom tires & rims, silver, 26k, excellent condition \$14,500 209-832-2862

1992 - Chevrolet Caprice 8 Pass Station Wagon, 5.0L V-8, 16/20 mpg, All power options, clean, excellent condition, 92K miles, Last of the big wagons, \$5995 925-443-5565

1996 - Ford Thunderbird LX, only 37000 miles, V8, auto, curise, air, tilt, all power options Asking \$8,500 or best offer 925-634-8523

1987 - Jetta GLI 16V 4-sale. Rebuilt transmission, \$2k in recent work. 114K on rebuilt top end. Asking \$1500 OBO. 925-513-2703

1996 - Honda Accord- 4 dr.sedan 76K miles, 5 speed, excellent condition, \$9,950 510-278-6314

305/70R-16 Pro Comp Tires on 16x8 Weld Racing Outback wheels w/caps. Fits late model GM trucks. Like new, less than 750 miles. \$1,250 209-365-

1990 - Acura Legend Coupe, 92K miles, V6, A/T, P/W, A/C, sunroof, AM/FM/cassette/6-disk CD, meticulously maintained, all records, \$6900/negotiable. 925-455-4512

1993 - Acura Integra,3 door,ac, pw,ps,tilt wheel,cruise,moon roof,upgraded stereo,alarm,5 speed,fun to drive \$4499 or obo 209-839-8628

1999 - Toyota Prerunner, V6, Auto, TRD Pkg, Locking Rear Diff., Alum. Wheels, Air, Ps, Pw, Pl, Tilt, Cruise, Alarm, Cassette/Disc, very low miles, 18,250. 925-443-3970

1995 - Chevrolet Camaro 118 -Automatic, T-tops, Power driver seat, new tires/fuel pump, Delco Bose AM/FM casette. Teal, 45k miles. Tom 925-980-1681

1989 - Jeep Cherokee, 151K miles, Original Owner, 4.0L, 4WD, A/T, A/C, Runs Great, Needs Paint, \$2900. 925-294-8825

1985 - Chevy van, runs good, shelving in back, \$1000 or BO. 925-292-0348

1994 - Toyota Corolla, 4D, AT, AC, PS, Air bags, AM/FM, 70 K mi, \$4590 925-862-0955

1984 - 1984 3/4 chevy pickup,4x4.Rebuilt Trannty, transfer case,long bed.runs good,looks fair. 4500.00 209-836-0631 209-836-0631

1979 - Datsun 280 Z, Good Condition. \$2.000.00 925-447-7768

1995 - Chrysler LeBaron Red Convertible, 44K miles - Like new, AT, AC, PS, PW, CC, 10-CD, dual air bags. Must Sell \$6500. 209-832-1417

1995 - Chevy Astro LT, 78K miles, loaded. Looks and runs great. \$8,500 209-833-9250

1995 - Neon Sport. Dark green, all options. good condition. 90K miles. \$3000 925-455-5672

AUTOMOBILE ACCESSORIES

Absolutely unused Michelin Tire for small car, 195R70x13, asking \$55, store purchase \$75 408-578-1792

1990 Toyota tail gate (new), 1993 Escort left front strut and wheel assy, and 3 sets of alloy wheels to fit Ford 4 lug - make offer 925-634-8523

Roll Bar for full size Pickup, 3 inch

tubing, narrow or wide bed, \$50/bo 925-443-5565

Mopar parts: 452 heads, \$125. Original 340 AAR sixpac carbs, rebuilt \$700. MP 440 distributer, NIB \$140. dual snorkel air cleaner \$100. 209-368-4286

Steel wheels off Chevrolet 4x4 6 lug.\$50.New firestone LT235/85 16 inch mud and snow.\$50 925-516-8339

BOATS

17 ft. Carvelle ,302 ford with 888 merc outdrive.Runs & looks excellent.\$2000.00 209-836-0631 209-836-0631

Ranger Bass Boat. Fiberglass, 18.5 foot. 175 Mercury Outboard, 24 volt minkota trolling motor. Runs great. \$3,500 925-634-8658

ELECTRONIC EQUIPMENT

Handspring Visor PDA w/ serial sync cable, USB portable cable, backup module, leather case and 3 nice stylus. All for \$40. 925-784-8095

2 Turntables for sale. Numark brand, belt drive. Excellent condition. \$100 for both. 209-599-5071

Printer: Style Writer II inkjet Black and White plus its software driver for Macintosh. Good quality prints, \$20. 925-455-4598

Car stereo system for sale. Two ZAPCO car amplifiers, studio 300X and a Z150S; Pioneer DSP Equalizer and 2-12in.JL Audio subwoofers.\$600 obo. 209-465-7064

Realistic Stereo AM/FM Receiver w/ 2 speakers. Works fine. \$30. 925-447-

Stock Stereo from 1999 Chevy Silverado. Removed when installed Custom Stereo. In Great Condition. Also will include stock speakers from doors. 29.00 925-245-1560

PowerMac. 7200/120/48MB, SCSI/USB, 17in Color Monitor. HP inkjet prntr. 250Zip, 56KModem, surge prot., sftwr, cbls, jystk. Ex.Condt! \$650.00. 925-447-3744

Pioneer VSX-455 Stereo Receiver, 110W per channel, remote, \$175. Coral BX-1200 100W Speakers, 25Hz-25KHz, \$25 each. Boston Acoustics Digital BA735 powered sub/satellite computer speakers, unused, \$20. 925-455-0639

GIVEAWAY

27-inch Heathkit TV. Almost works. 925-462-3810

Hot Tub used to work, you haul. 2 Stainless Steel Kitchen sinks, used. 925-449-6048

Free Desk and Credenza U haul 925-556-0240

Dollhouse - Wooden, two story. Needs TLC. Free to good home. 209-824-1076

Sofa Sleeper - Sofa in fair condition and sleeper in very good condition. Tan, brown, and white striped pattern. Approximately 6.5 feet long. 925-443-4413

Household

Queen size Murphy Bed (folds vertical against the wall) mechanism, box spring, and mattress in good cond. \$250 OBO 925-634-8523

Dryer, Kenmore electric reconditioned, almond, auto dry cycle, about 10 yrs old, \$95 925-443-5565

Bedroom Furniture, 9 drawer dresser w/mirror, 7 drawer dresser, and two 2-drawer night stands. \$500.00 obo 209-551-4309

Oak Dining Room Table, Four Chairs and a Leaf. Picture available upon request. \$100 925-447-4119

White iron day bed, good condition \$30.00. 925-706-2088

Garage sale 1161 Central Ave. Livermore 6-1-02 8-2PM. Misc. Toys & household items. 925-447-4370

Microwave oven, GE Dualwave II, model 1435, 700W, no carousel needed, very good condition. \$35. 925-846-3653

GHANGING TABLE-White with storage shelves, brand new contoured pad, \$50.00 925-443-1903

Simons Baby Crib: light maple with rounded head- and foot-board: includes Simons mattress: \$175. 925-833-2560

Microwave stand with rollers- woodlike appearance. Two shelves below top surface. \$20. 925-456-5345

Light oak table with 4 oak chairs. 48 by 60 inches-oval. Honey in color. Good condition. \$200 OBO 925-371-4479

Dining table 48 x 30 wilth 4 chairs, solid hardwood. \$100 925-516-8339

Elegant Pecan Dinning Set, 2 leaves(18 inch), table pads, 6 new fabric chairs - 2 arms. Excellent condition.Size 48X67 w/o leaves.Seats 12. \$800.00 925-634-7036

Livingroom Set. Light Blue/Mauve, Couch, Loveseat, 2 Wingback Chairs. Excellent Condition. \$500.00 209-836-5596

Leather chair. New in box. \$50. 925-449-6811

Little Litton microwave \$15. 13 inch color TV \$20. Crock Pot \$5. lamp \$5 925-455-5672

Daybed, oak with brass, exc. cond., \$300/BO. 925-449-7015

LOST & FOUND

Lost Small Nokia 8260 charcold cell phone with leather case 209-599-7199

MISCELLANEOUS

Casio Graphic Calculator - 3 color LCD. Great for students, permitted for SAT/PSAT. Advance math w/ Statistics and Financial functions. \$45 925-784-8095

Chainsaw - 2 Mac Eager Beaver Model 2014, 2.0 ci, 14 inch, low hours \$150.00 each. 209-892-3626

New 20-inch cordless rechargeable rear-discharge mulching mower. \$125 925-447-4237

NEIGHBORHOOD GARAGE SALE 30+ families - Springtown, Livermore. Sat June 1/02 8am-Noon. Bluebell to Sunflower then follow the signs. 925-447-7535

2002 Great America VIP Season Pass - Free Parking included. One available. Sell @ cost \$69. 925-447-1428

Sears riding tiller and mower.runs good \$600.00 209-836-0631-16 hp. 209-836-0631

Two 3-way reclining highchairs. Just like new. \$35 each. 925-373-7658

Troy-bilt Super Tomahawk chipper, very good condition \$260; Troy-Bilt Horse rototiller, old, serviceable \$35. You haul. 925-447-3672

Teak Table 38x38 w/4 chairs and leaf \$300. Teak Entr Cntr 77x60. Fits 27 inch TV \$500. Elec Stove/Oven. Wht w/blk door. 5 yrs old \$75. 925-634-7036

Cowboy boots, Lucchese, San Antonio TX, Brn, tooled leather, 8 1/2D, hardly worn. \$100 925-449-6963

Moving Sale: Freezer, 7.5 cu. ft., white, excellent ocndition, \$100.00; sleeper

sofa, queen size, neutral color, very good condition, \$100.00 510-713-9873

MOTORCYCLES

1980 - Honda XL500, Runs great: street or dirt. New chain and tires. Low mileage. \$1100 OBO. 408-739-1539

2001 - Suzuki DR200SE, Street Legal, Dual Purpose, Electric Start, Low Miles, Great Fuel Mileage, Must Sell, Excl. Cond. \$3,200 obo 925-443-3970

MUSIC INSTRUMENTS

Piano. \$600. Wurlitzer spinet. Bench included. Located in Orinda 925-253-1467

Lowrey electronic organ, GX Model G-400, excellent condition. Purchased for \$9000+ in 1987. Sell for \$2000. 925-846-3653

PETS & SUPPLIES

Budgie (parakeet) green, female, 1 1/2 years old. \$40.00. Antioch. 925-706-2088

Portable dog kennel 6ft x 12ft x 6ft with shades. Cost approximately \$600, but will sell for \$300. Call 209-599-3285

Toy chihuahua breeding service. Please call if interested. 209-952-5305

Beautiful, loving, very well-behaved long-haired siamese neutered male cat. Free to a good home. 510-596-3508

Quarter Horse, Register, 10-yr old gelding, Sorrel. Used for roping, sorting and pending. Experience rider only. Smooth ride. \$4000 or BO. 209-881-0537

Free to good home. Qui a 7 yr old female all white husky/chow mix. Very good with children. Wonder additional to loving family. 925-447-

Puppies - male Australian Shepherd/Queensland Heeler mix. Adorable & ready to go to your home. \$75. 209-402-0020

RECREATION EQUIPMENT

Complete set of dive gear.regs,mask,fins, costeau bcd. all used twice. wet suit app. 150 lbs. wts,sling,\$800.00 or offer 209-836-0631

RIDESHARING

Express your commute, call 2-RIDE for more information or visit http://www-r.llnl.gov/tsmp

Orinda - Carpool from Lamorinda seeks 4th driver/rider. Meets near St. Stephens & Hwy 24. Lab hours 8:10am - 5pm. 925-253-0498, ext. 2-9823

Manteca - Looking for vanpool 6:30-7:00am/3:30-4:00pm 209-825-1580, ext. 4-5861

Ceres/Modesto - 14 psgr Enterprise deluxe van, 7:00-3:30, \$115/month-Tim 209-537-0229, ext. 3-6631

SERVICES

Fencing, Wood. New, Replacement or Repair. Hauling service available also. 925-373-9540

SHARED HOUSING

Livermore - Room in nice home, no smoking or pets. \$500 per month plus half utilities. 925-455-6044

Livermore - 2 Rooms available on 6/15 - 3 bedroom 1 bath home. 3 mi from lab

\$550 mo. utilites inc. 925-447-9062

STOCKTON - Furnished room w/own bath. N/S N/P. Full house privileges. \$500/mo + half utilities. 925-449-8034

Livermore - Room for rent. good neighborhood. \$460/mo. small room, furnished. utilities included. smoker okay. 925-447-6218

TRUCKS & TRAILERS

1997 - Dodge Ram 1500 2 Wheel drive 120,000 miles Just had top end of motor completely rebuilt. Campershell, Dual exhaust... Imaculate! 11,500 firm 925-371-2737

1999 - Toyota Prerunner, V6, Auto, TRD Pkg, Locking Rear Diff., Alum. Wheels, Air, Ps, Pw, Pl, Tilt, Cruise, Alarm, Cassette/Disc, very low miles, 18,250. 925-443-3970

1988 - Nomad 30 ft. fifth wheel Fully loaded. Microwave, A/C AM/FM Cassette. \$5000 OBO 925-828-3044 925-828-3044

1984 - Suburban..GMC 6.2 | Diesel 1/2 ton, a/c, cruise control \$2000 OBO 925-449-1464

1997 - Cheve Silverado Z71 4 Wheel Drive, Extended Cab, New All Terrain Tires, Well Maintained, Black/Silver -\$16,500. 925-294-9194

1985 - ITASCA A-Class. 24foot, New parts:Engine, Torque, Generator, Awning, Differential and Fridge. Super clean. 38K mi. Must sell. \$10,850 209-839-8102

1996 - Chevy Ext. Cab 2500. 3/4 Ton Hvy Duty, P/S, A/C, 5 Speed, runs great. 48K. \$13,000 or best offer. 925-455-6310

VACATION RENTALS

MAUI, WAILEA EKAHI, 1 bdrm, 2 bath condo, discounts for 6/4-20, 7/7-16; Arnold cabin: 6/23-30, 8/26-9/2. 510-582-9262

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

SOUTH LAKE TAHOE - 3 bedroom 2 Bath Chalet,newly remodeled, nicely furnished,all amenities,Park with Lake, tennis,playgound,etc. Great for Families,Reserve for Summer! 209-

Maui Wailea Ekahi, 1 bdrm, 2ba, luxury condo, discounts for June 4-20 and beginning August 26. 510-582-9262

Pinecrest - (Off Sonora Pass Road), 3 bdrm/2 bath, frplc w/wood, microwave, dishwasher, pool table, large deck and view up No. Fork of Tuolumne, \$195/wknd. 925-449-5513

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

WANTED

ouse Painting - Over 16 yrs experience. Call for free estimate. 209-956-

GM / Delco remote single CD player. These CD Players come in 1995-2002 GM Trucks/Tahoes and vans. 209-599-0922

Double Headboard and footboard (optional) plus bunk-bed w/o mattresses 925-373-7658

Wanted: Weight set. 2 Dumbells, and 1 barbell with weights (around 200 lbs worth if possible) for little home gym. 925-245-1560

WANTED: Old vacuum tubes/amps, old stereos, speakers. 925-443-2954

Looking for a used scuba tank, prefer-

Friday, May 31, 2002

AROUND THE LAB



Report security concerns to avoid clearance issues

The Safeguards & Security Department reminds all "L" and "Q" cleared personnel of the DOE requirement to report potential security concerns when they become aware of an issue that may impact their access authorization (clearance). "Security concern" examples include:

- All arrests, criminal charges (including dismissed charges), or detentions by any local, state or federal officials, or other law enforcement officials for violations of law other than traffic violations for which only a fine of \$250 or less was imposed, within or outside of the United States. Personal or business-related filing for bankruptcy.
 - Legal action for name change.
 - Wage garnishments or attachments.
 - Change in citizenship.

Individual reporting is required verbally within two working days followed by written notification within the next three working days to NNSA/DOE Oakland Personnel Security Division, 2-2166.

LLNL management (including supervisors) of "L" and "Q" cleared personnel also have additional reporting responsibilities under the DOE security requirements including:

- When an employee fails to report to work (absent without approved leave).
- When an individual's hospitalization for mental illness or other conditions, to include alcohol or drug rehabilitation, may cause significant defect in judgement or reliability.
- When aware of information of personnel security interest. Such information must be characterized as reliable and relevant and create a question as to an individual's access

Upcoming SAFE talk

Connie Allen, a professor at Center Intelligence (CI) Centre in the Washington, D.C., area will speak on:

"Vulnerabilities of the Foreign Traveler"
Tuesday, June 4
1:30 - 3:30 p.m.
Bldg. 543 auditorium
Unclassified



All Laboratory employees are invited to attend, although this abbreviated seminar was prepared for travelers to foreign countries, especially nations on the DOE list of sensitive countries. (See: http://www-r.llnl.gov/safe/list.html)

Allen is a counterintelligence expert whose experience includes 25 years in the U.S. Army as a senior instructor and counterintelligence special agent. Her presentation reflects her extensive knowledge of surveillance, tradecraft, and espionage operations — and which techniques Laboratory employees might encounter when they go on foreign travel.

authorization eligibility as exemplified in 10 CFR 710.8. (Example: violation of workplace safety and/or security rules.)

- When an employee's access to classified matter or SNM is removed without DOE involvement. (Example: re-assignment to uncleared duties pending an outcome of an investigation into workplace violence, etc.)
- Reporting an employee being arrested. To comply with this requirement, LLNL management must notify the NNSA/DOE

Requisition Classification

Oakland Personnel Security Division, 2-2166 verbally within two working days, followed by written confirmation within 10 working days.

Both employee and management notification should include the individual's name, laboratory identification number, description of security concern and occurrence date.

If you have any questions or concerns, regarding these reporting requirements, please contact Cindy McAneney, 3-1903 or mcaneney2@llnl.gov.

Organization

As a Lab employee. .

you are responsible for knowing the protective action terminology that may be used in an emergency.

Familiarize yourself with these concepts:

Shelter

The Shelter-In-Place announcement means: Shelter: Stay inside your building or go inside the

Shelter: Stay inside your building or go inside the nearest building.

Shut: Close doors and windows.

Listen: Listen for further instructions over the emergency paging system or Lab Emergency Radio 1610 AM. *Avoid using the telephone unless you have a life-threatening emergency.*

Evacuation

The Evacuation announcement means:

Secure classified material in a safe and expedient manner.

Exit the building per your building evacuation plan unless directed otherwise by the emergency announcement.

Report to the designated Assembly Point and wait for further instructions.

Call Emergency Preparedness 4-LLNL

INTERNAL TRANSFER OPPORTUNITIES

Title

TO	1100	105 1	A - t - - t t	Talanaman minations 0 Cita I Hillitian
TC	4180	105.1	Associate administrator	Telecommunications & Site Utilities
SS	4173	126.2	Senior security administrator	Safeguards & Security
CO	4219	200	Computer scientist/engineer	Computation
BS	4177	220	Postdoctoral researcher	Biology & Biotechnology Research Program
EE	4214	220	Post doc. research member	Electronics Engineering
BS	3768	225	Biomedical scientist	Biology & Biotechnology Research Program
EZ	4127	270	Physicist	Energy & Environment
Al	4161	285	Software engineer	Administrative Information Systems
Al	4162	285	Software engineer	Administrative Information Systems
Al	4163	285	Software engineer	Administrative Information Systems
Al	4164	285	Software engineer	Administrative Information Systems
Al	4165	285	Software engineer	Administrative Information Systems
Al	4179	285	Computer scientist	Administrative Information Systems
Al	4224	285	Computer scientist	Administrative Information Systems
CO	4230	-285	Computer scientist	Computation
Al	4160	324.1	Computer programming assoc.	Administrative Information Systems
CO	4191	393.1/2	Systems & networks associate	Integrated Communications & Integrated Computing
PE	4222	405.3	Administrative specialist III	Plant Engineering
SS	3295	405.3	Administrative specialist III	Safeguards & Security
BS	4218	405.4	Administrative specialist IV	Biology and Biotechnology Research Program
EE	4132	531.3	Senior electronics technologist	Electronics Engineering
ME	3709	538.1	Coordinator	Mechanical Engineering
TI	4197	582.4/3	Senior photographic technician	Technical Information and Business Services
ST	3669	707.1	Services scholar	Technical Information and Business Services
PE	4205	823.1	Carpenter	Plant Engineering

8 Newsline Friday, May 31, 2002



The back page

TOWER

Continued from page 1

Laboratory paging system.

"This will continue to serve as an emergency communications point," Davis said, noting the facility is equipped with back-up power to operate the trunk radio system in the event of a power failure.

As required by the FAA, the tower is topped by a strobe warning light for aircraft.

Cal Dibble, Site 300 project manager, said the new tower will eliminate most of the radio "dead spots" at the 11-square-mile test site on Corral Hollow Road. The tower will also be a prime consideration for developing future non-emergency communications at the test site.

The new tower is anchored in a foundation consisting of 60,000 pounds of steel and 280 yards of concrete. "This provides a communications facility that will serve the Laboratory and the test site well into the future," Davis said.



Completion of the radio tower at Site 300 included construction of a communications facility to house microwave and radio transmitters and receivers.

TTEC

Continued from page 1

the Lab's Silicon Monolithic Microchannel-Cooled (SiMM) process to fabricate and package the diode arrays.

DIODETEC, headquartered in New Kensington, Penn., recently opened an office at TTEC.

"It's a great service for a start-up," said Keng Leong, chief technical officer for the company. "It's very useful because we spend so much time on site. We've been very pleased that we got the office space."

Manufacturing Engineer Ryan Shaffer said it's less expensive than opening up a satellite office off-site because you don't have the initial start-up costs of buying office furniture and equipment all the materials necessary to open an office.

"We don't have to go out and buy copiers and computers," he said.

The third company, WaferFlow — started by four Tri Valley chip-manufacturing veterans — is still in semi-stealth-mode, focusing its

development in the advanced semiconductor packaging market.

I've been glad that we've been able to attract this many companies in such a short time," says Michael LaLumiere, TTEC's executive director. "I've been at this just over six months and so far, considering we're in a technology recession, we've done pretty well. I must admit, though, we're primarily riding the coattails of the licensing group at the Lab. They've been doing a lot of deals so companies have just been naturally coming to us."

The first three private companies — ETARAN Instruments, SOX Systems and NanoLogic — moved into TTEC in January.

TTEC was created to help promote the success of local start-ups, small business and to act as a bridge between the local national laboratories and the region's technology community. The center provides business services, facilities, training, and access to advisers and mentors in areas such as business operations and management, technical specialties, sales and marketing, financial, legal and banking.

In other TTEC news, Deepak Gupta —

founder, senior vice president and general manager of PeopleSoft's eCenter — has joined the TTEC Entrepreneurial Advisory Board. The board already includes: Brian Peters, CEO of Blaze Network Products; Trung Dung, founder of OnDisplay and CEO/founder of Fog-break Software; and Clyde Armstrong, CEO of Inovys.

The center also assists the Technology Commer-cialization and Transfer Programs of Livermore and Sandia labs by promoting and supporting lab commercialization efforts.

TTEC will continue its Entrepreneurial Seminar Series in June, July and August with subjects ranging from creating business plans to term sheets to accounting basics.

TTEC is a joint effort between the Tri-Valley Business Council, Livermore and Sandia labs, Pacific Gas & Electric Company, the City of Livermore, the office of Rep. Ellen Tauscher and the Department of Energy.



WORKSHOP

Continued from page 1

The speakers, both the keynoters and those on panels, discussed many different aspects of software and the varied ways in which it is valued and licensed after it has been written.

Jan Tulk, associate director of the Administration Directorate and Laboratory Counsel, introduced the workshop and provided an overview on the Laboratory for the conference's outside guests.

"Workshops of this type serve a valuable function," Tulk said. "Last week's workshop was part of a multi-pronged effort to raise the level of our attention to intellectual property for software to one that is appropriate for the excellence of our technical program."

One of the keynote speakers was James Taylor, who shared his views of the future. Taylor, an author, consultant and adviser to some of America's leading companies, drew on his experience as a marketer and innovator to cover many different aspects of the future.

Associate Director for Computation Dona

Crawford noted that, "At the workshop, we were able to explore a wide spectrum of intellectual property interests related to software. Their interests varied depending on whether they came from the code developers who generate software, managers who have both programmatic and long-term research responsibilities, or our legal and business experts and procurement specialists who work with it on a daily basis."

Karena McKinley, director of the IPAC office, moderated an industrial panel composed of company representatives from IBM and Hewlett-Packard, and a venture capitalist from Taproot Ventures. Their discussions centered on how their companies viewed software as an asset and treated it. Other panels discussed intellectual property issues, open source software licensing, university experience with software licensing, and various laboratory technology transfer professionals' experiences with software licensing.

According to McKinley, this workshop was one of several initiatives to raise the Laboratory's understanding of intellectual property and business issues related to software to a level that is appropriate for Livermore's world-class technical work.

Newsline UC-LLNL PO Box 808, L-797 Livermore, CA 94551-0808